## What is claimed:

5

10

15

20

25

30

35

- A purified and isolated DNA molecule having a nucleotide sequence encoding human
  M-Ras or functionally equivalent fragments thereof.
- 2. A purified and isolated DNA molecule having a nucleotide sequence encoding murine M-Ras or functionally equivalent fragments thereof.
- 3. The purified and isolated DNA molecule of claim 1 or 2, wherein said DNA molecule is genomic.
- 4. A chemically synthesized DNA molecule having a nucleotide sequence encoding human M-Ras or functionally equivalent fragments thereof.
- 5. A chemically synthesized DNA molecule having a nucleotide sequence encoding murine M-Ras or functionally equivalent fragments thereof.
- 6. A purified and isolated RNA molecule having a nucleotide sequence encoding human M-Ras or functionally equivalent fragments thereof.
- 7. A purified and isolated RNA molecule having a nucleotide sequence encoding murine M-Ras or functionally equivalent fragments thereof.
- 8. A purified and isolated polypeptide having an amino acid sequence comprising human M-Ras or functionally equivalent fragments thereof.
- A purified and isolated polypeptide having an amino acid sequence comprising murine
  M-Ras or functionally equivalent fragments thereof.
- 10. A method of alleviating asthma-related disorders by administering to patients in need of such treatment an equivalent amount of a compound to down-regulate the function of human M-Ras.
- 11. A method according to claim 10 wherein the compound comprises a farnesyl transferase inhibitor.
- 12. A method according to claim 11 wherein the farnesyl transferase inhibitor is manumycin A.
  - 13. A method according to claim 11 wherein the farnesyl transferase inhibitor is lovastatin.
- 14. A method according to claim 10 wherein the compound comprises a geranylgeranyl transferase inhibitor.
  - 15. A method according to claim 10 wherein the compound comprises an aminosterol.
  - 16. A method according to claim 15 wherein the aminosterol is 1409.
- 17. A method according to claim 10 wherein the compound comprises an inhibitor of the MAPK pathway.
- 18. A method according to claim 17 wherein the inhibitor of the MAPK pathway is PD98059.